ABSTRACT OF THE DISCLOSURE

A laser beam is obtained from a semiconductor laser by a stable emission light amount. A first semiconductor laser is thermally coupled with a second semiconductor laser and driven by a feedback circuit constructed by a photodetector, an I-V converter, and a current generator so as to stabilize the emission light amount. A current I_0' having a correlation with a drive current I_0 of the 1st laser is outputted from a current mirror circuit. A modulation signal is supplied to a current pull-in type current driving circuit via a multiplier and a linearity compensating circuit and a current I_2 according to the modulation signal is extracted from a collector of a transistor. The 2nd laser is driven by a current I_1 ($I_0' - I_2$) and a laser beam modulated by the modulation signal is generated. Since the signal modulation by the 2nd laser is performed without influencing on I_0 and the 2nd laser is driven by I_0', the emission light amount is stabilized.